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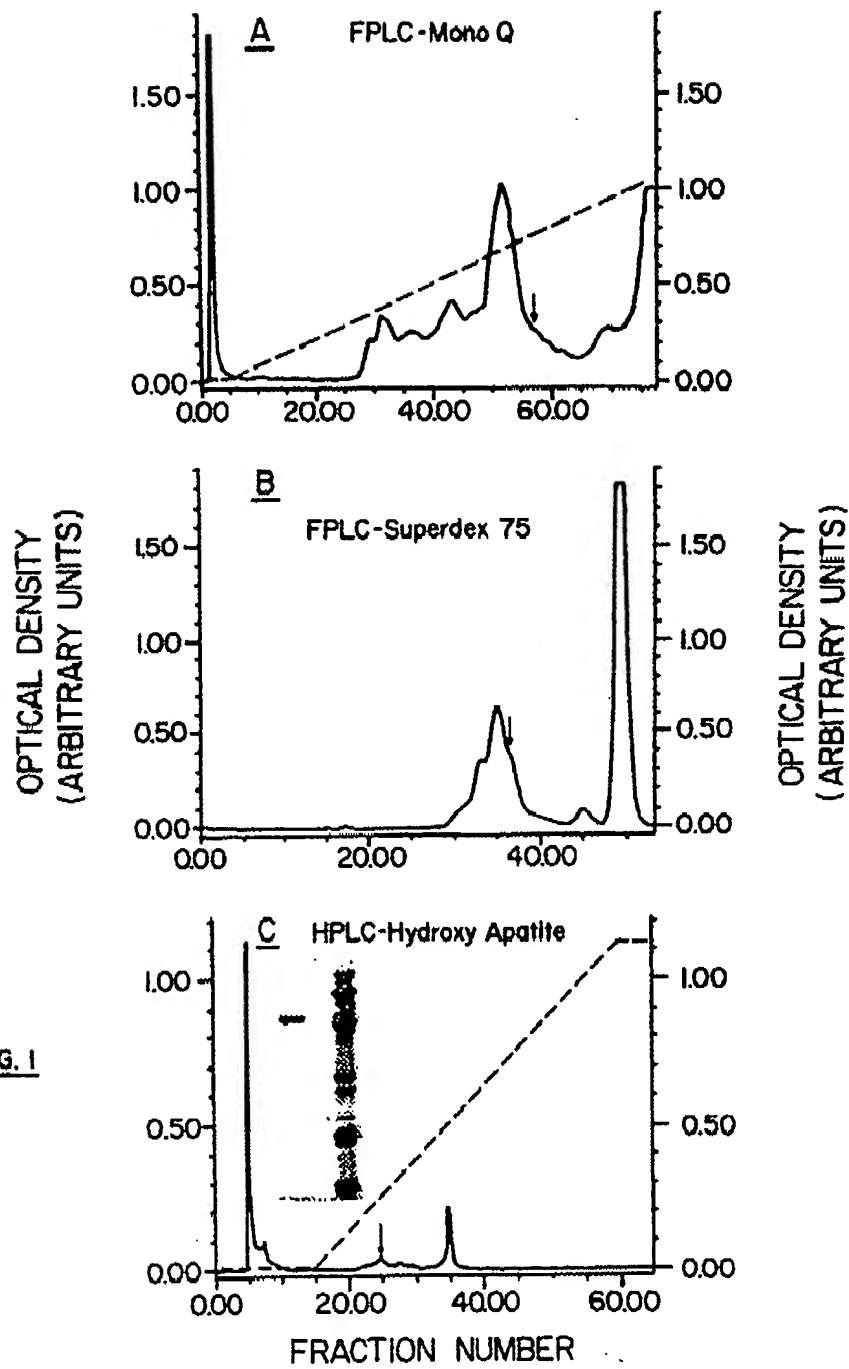


FIG. 1

1 MERASCLLLL LLPLVHVSAT TPEPCELDDE DFRCVCNFSE PQPDWSEAFQ
 D -?--?--NN? ??-?-?

51 CVSAVEVEIH AGGENCEPFL KRVDADADPR QYADTVKALR VRRITVGAAQ
 V----?-S ---LSL?

101 VPAQLLVGAL RVLAYSRLKE LTLEDLKITG TMPPLPLEAT GLALSSLRLR

151 NVSWATGRSW LAELQQWLKP GLKVLSIAQA HSPAFSYEQV RAFPALTSLD
 ?---?--GA? -G---

201 LSDNPGLGER GLMAALCPNK FPAIQNLALR NTGMETPTGV CAALAAAGVO
 ---S-P A-----LR--

251 PHSLDLSHNS LRATVNPSAP ROMWSSALNS LNLSFAGLEQ VPKGLPAKLR
 -Q-----? -?V?

301 VLDLSCNRLN RAPQPDELPE VDNLTLDGNP FLVPGTALPH EGSMNSGVVP
 L----V

351 ACARSTLSVG VSGTLVLLQG ARGFA
 ???--

FIG. 2



FIG. 3

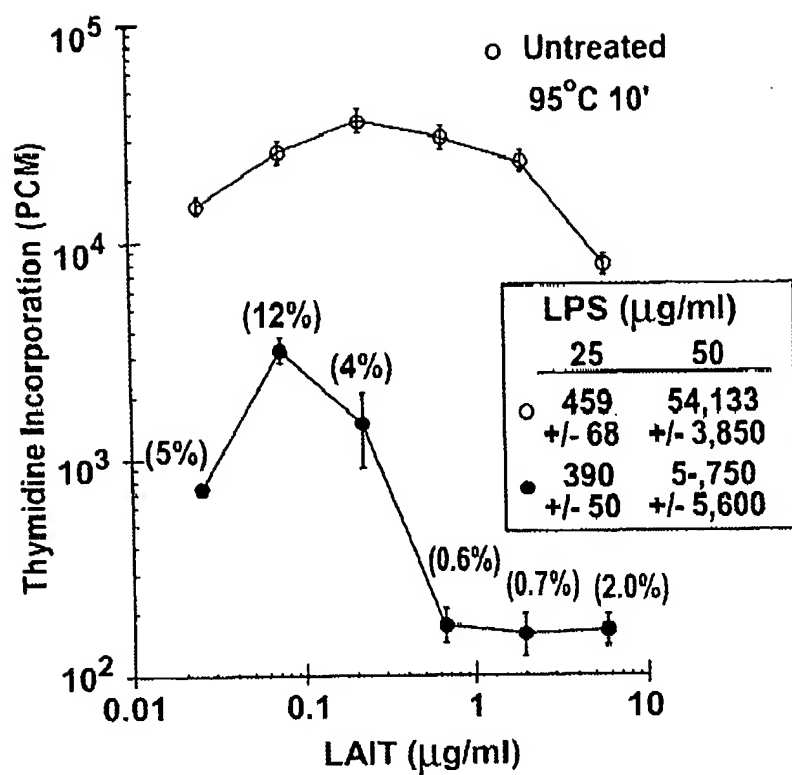


FIG. 4A

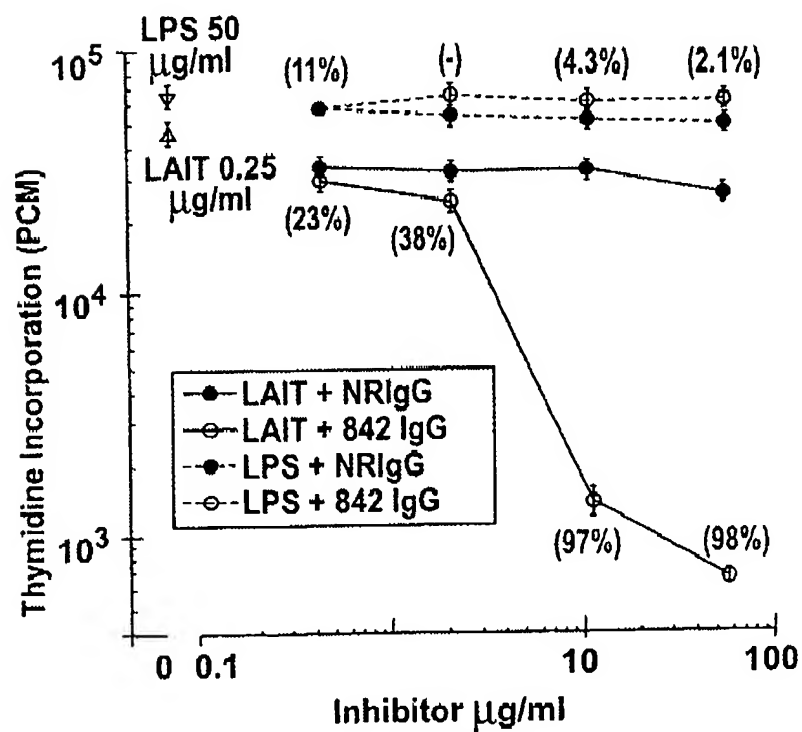


FIG. 4B

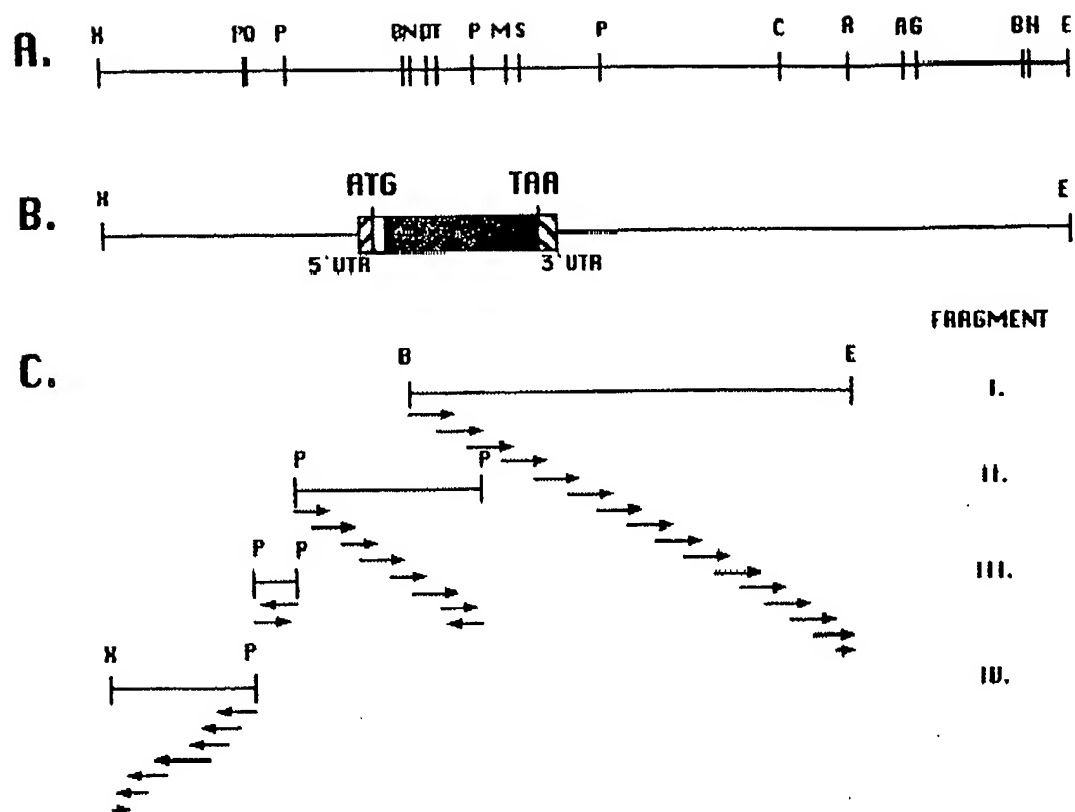


FIG. 5

Majority
 A T G G A G C G C G T G C C C T G C T T G T T G C T G C T G C T G

10 20 30

Bovine CD14 cDNA A T G G T G T G C G T G C C C T A C C T G C T G C T G C T G C T G 33
 Human CD14 cDNA A T G G A G C G C G C G T C C T G C T T G T T G C T G C T G C T G 33
 Mouse CD14 cDNA A T G G A G C G T G T G C T T G G C T T G T T G C T G T T G C T T 33

Majority
 C T G C C G - - - C T G G T G C A C G T C T C T G C G G C C A C A

40 50 60

Bovine CD14 cDNA C T G C C G T C A C T G C T G C G T G T G T G C G G A C A C A 66
 Human CD14 cDNA C T G C C G - - - C T G G T G C A C G T C T C T G C G A C C A C G 63
 Mouse CD14 cDNA C T G - - - - - - - - - G T G C A C G C C T C T C C G C C C C A 57

Majority
 C C A G A A C C C T G C G A G C T G G A C G A X G A A G A T T T C

70 80 90

Bovine CD14 cDNA A C A G A A C C C T G C G A G C T G G A C G A C G A C G A T T T C 99
 Human CD14 cDNA C C A G A A C C T T G T G A G C T G G A C G A T G A A G A T T T C 96
 Mouse CD14 cDNA C C A G A G C C C T G C G A G C T A G A C G A G G A A A - - - - 86

Majority
 C G T T G T G T C T G C A A C T T C T C X G A T C C G A A G C C X

100 110 120 130

Bovine CD14 cDNA C G T T G T G T C T G C A A C T T C A C G G A T C C G A A G C C T 132
 Human CD14 cDNA C G C T G C G T C T G C A A C T T C T C C G A A C C T C A G C C C 129
 Mouse CD14 cDNA - G T T G T T C C T G C A A C T T C T C A G A T C C G A A G C C A 117

Majority
 G A C T G G T C C A G C G C C T T C C A G T G Y X T G G X T G C X

140 150 160

Bovine CD14 cDNA G A C T G G T C T A G C G C C G T T C A G T G T A T G G T T G C C 165
 Human CD14 cDNA G A C T G G T C C G A A G C C T T C C A G T G T G T G T C T G C A 162
 Mouse CD14 cDNA G A T T G G T C C A G C G C T T T C A A T T G T T T G G G G G C G 150

Majority
 G T A G A G G T G G A G A T C X A T G C C G G C G G C C G C A G C

170 180 190

Bovine CD14 cDNA G T C G A G G T G G A G A T C A G T G C C G G C G G C C G C A G C 198
 Human CD14 cDNA G T A G A G G T G G A G A T C C A T G C C G G C G G G T C T C A A C 195
 Mouse CD14 cDNA G C A G A T G T G G A A T T G T A C G G C G G C G G C C G C A G C 183

Majority
 C T G G A A C A G T T T C T A A A G C G X G T C G A X X C G G A C

200 210 220 230

Bovine CD14 cDNA C T G G A A C A G T T T C T A A G G G A G C C G A - - - - - C 225
 Human CD14 cDNA C T A G A G C C G T T T C T A A A G C G C G T C G A T G C G G A C 228
 Mouse CD14 cDNA C T G G A A T A C C T T C T A A A G C G T G T G G A C A C G G A A 216

FIG. 6 A

Majority G C C G A C C C G X G G C A G T A T G C T G A C A C X A T C A A G
240 250 260

Bovine CD14 cDNA A C C A A C C C G A A G C A G T A T G C T G A C A C A A T C A A G 258
Human CD14 cDNA G C C G A C C C G C G G C A G T A T G C T G A C A C G G T C A A G 261
Mouse CD14 cDNA G C A G A T C T G G G G C A G T T C A C T G A T A T T A T C A A G 249

Majority G C T C T G C G C G T X C G G C G G C T C A C G G T G G G X G C C
270 280 290

Bovine CD14 cDNA G C T C T G C G C G T T C G G C G A C T C A A G C T G G G C G C T 291
Human CD14 cDNA G C T C T C G C G T G C G G C G G C T C A C A G T G G G A G C C 294
Mouse CD14 cDNA T C T C T G T C C T T A A A G C G G C T T A C G G T G C G G G C C 282

Majority G C A C A G G T T C C T G C T C A G C T T C T G G T C G G C G C C
300 310 320 330

Bovine CD14 cDNA G C A C A G G T T C C T G C T C A G C T T C T G G T C G C C G T T 324
Human CD14 cDNA G C A C A G G T T C C T G C T C A G C T A C T G G T A G G C G C C 327
Mouse CD14 cDNA G C G C G G A T T C C T A G T C G G A T T C T A T T C G G A G C C 315

Majority C T G C G T G T G C T C G G G T A C T C C C G C C T C A A G G A A
340 350 360

Bovine CD14 cDNA C T G C G C G C G C T C G G G T A C T C T C G T C T C A A G G A A 357
Human CD14 cDNA C T G C G T G T G C T A G C G T A C T C C C G C C T C A A G G A A 360
Mouse CD14 cDNA C T G C G T G T G C T C G G G A T T T C C G G C C T C A G G A A 348

Majority C T G A C G C T T G A G G A C C T X G A G G T A A C C G G C A C C
370 380 390

Bovine CD14 cDNA C T G A C G C T T G A G G A C C T G G A G G T A A C C G G C C A 390
Human CD14 cDNA C T G A C G C T C G A G G A C C T A A A G A T A A C C G G C A C C 393
Mouse CD14 cDNA C T G A C T C T T G A A A A T C T C G A G G T A A C C G G C A C C 381

Majority A C G C C X C C G C C G C C T C T G G A A G C C A C X G G A C C T
400 410 420

Bovine CD14 cDNA A C G C C C C C G A C G C C T C T G G A A G C C G C T G G G C C T 423
Human CD14 cDNA A T G C C T C C G C T G C C T C T G G A A G C C A C A G G A C T T 426
Mouse CD14 cDNA G C G C G C C A C C G C T T C T G G A A G C C A C C G G A C C C 414

Majority G C X C T C A C C A X C T T G A G C C T X C G C A A C G T G T C G
430 440 450 460

Bovine CD14 cDNA G C G C T C A C C A C C C T C A G T C T G C G T A A C G T A T C G 456
Human CD14 cDNA G C A C T T T C A G C T T G C G C C T A C G C A A C G T G T C G 459
Mouse CD14 cDNA G A T C T C A A C A T C T T G A A C C T C C G C A A C G T G T C G 447

FIG. 6 B

Majority T G G G C A A C A G G G G G T G C C T G G C T C G C C G A A C T G
470 480 490

Bovine CD14 cDNA T G G A C A A C A G G A G G T G C C T G G C T C G G C G A A C T G 489
Human CD14 cDNA T G G G C G A C A G G G C G T T C T T G G C T C G C C G A G C T G 492
Mouse CD14 cDNA T G G G C A A C A A G G G A T G C C T G G C T C G C A G A A C T G 480

Majority C A G C A G T G G C T C A A G C C T G G X C T C A A G G T A C T G
500 510 520

Bovine CD14 cDNA C A G C A G T G G C T C A A G C C T G G G C T C A G G G T G C T G 522
Human CD14 cDNA C A G C A G T G G C T C A A G C C A G G C C T C A A G G T A C T G 525
Mouse CD14 cDNA C A G C A G T G G C T A A A G C C T G G A C T C A A G G T A C T G 513

Majority A G C A T T G C C C A A G C A C A C T C G C T T G C C T T T T C C
530 540 550 560

Bovine CD14 cDNA A A C A T T G C C C A A G C A C A C T C G C T T G C C T T T C C G 555
Human CD14 cDNA A G C A T T G C C C A A G C A C A C T C G C C T G C C T T T T C C 558
Mouse CD14 cDNA A G T A T T G C C C A A G C A C A C T C A C T C A A C T T T T C C 546

Majority T G C G A A C A G G T C C G C G C C T T C C G G C C C T C A C C
570 580 590

Bovine CD14 cDNA T G C G C A G G G C T C T C C A C C T T C G A G G C G C T C A C C 588
Human CD14 cDNA T G C G A A C A G G T T C G C G C C T T C C G G C C C T T A C C 591
Mouse CD14 cDNA T G C G A A C A G G T C C G C G T T C T T C C C T G C C C T C T C C 579

Majority A C C C T A G A C C T G T C T G A C A A T C C T G G A C T G G G C
600 610 620

Bovine CD14 cDNA A C C C T A G A C C T G T C T G A C A A T C C C A G T C T C G G C 621
Human CD14 cDNA A G C C T A G A C C T G T C T G A C A A T C C T G G A C T G G G C 624
Mouse CD14 cDNA A C C T T A G A C C T G T C T G A C A A T C C T G A A T T G G G C 612

Majority G A X A C G X G G A C T G A T G G C A G C T C T C T G T C C C C A
630 640 650 660

Bovine CD14 cDNA G A C A C G - G G G C T G A T G G C A G C T C T C T G T C C C G A A 653
Human CD14 cDNA G A - A C G C G G A C T G A T G G C G G C T C T C T G T C C C C A 656
Mouse CD14 cDNA G A G A - G A G G A C T G A T C T C A G C C C T C T G T C C C C T 644

Majority C A A G T T C C C G G C C C T C C A A X A T C T A G C G C T G C G
670 680 690

Bovine CD14 cDNA C A A G T T C C C G G C C C T C C A A T A T C T A G C G C T A C G 686
Human CD14 cDNA C A A G T T C C C G G C C A T C C A G A A T C T A G C G C T G C G 689
Mouse CD14 cDNA C A A G T T C C C G A C C C T C C A A G T T T A G C G C T G C G 677

FIG. 6 C

Majority C A A C G C G G G G A T G G A G A C G C C C A G C G G C G T G T G

700 710 720

Bovine CD14 cDNA C A A C G C G G G G A T G G A G A C G C C C A G C G G C G T G T G 719

Human CD14 cDNA C A A C A C A G G A A T G G A G A C G C C C A C A G G C G T G T G 722

Mouse CD14 cDNA T A A C G C G G G G A T G G A G A C G C C C A G C G G C G T G T G 710

Majority C G C X G C G C T G G C G G C A G C A A G G G T G C A G C C C C A

730 740 750

Bovine CD14 cDNA C G C G G C G C T G G C G G C A G C G A G G G T G C A G C C C C A 752

Human CD14 cDNA C G C C G C A C T G G C G G C G G C A G G T G T G C A G C C C C A 755

Mouse CD14 cDNA C T C T G C G C T G G C C G C A G C A A G G G T A C A G C T G C A 743

Majority A A G C C T A G A C C T C A G C C A C A A C T C G C T G C G C G X

760 770 780 790

Bovine CD14 cDNA A A G C C T G A C C T C A G C C A C A A C T C G C T G C G C G T 785

Human CD14 cDNA C A G C C T A G A C C T C A G C C A C A A C T C G C T G C G C G C 788

Mouse CD14 cDNA A G G A C T A G A C C T T A G T C A C A A T T C A C T G C G G G A 776

Majority C A C C G C A - - C C C X G G C G C T C C G A G A T G T G T C T G

800 810 820

Bovine CD14 cDNA C A C C G C - - C C C G G T G C T A C C G A T G T G T C T G 815

Human CD14 cDNA C A C C G T A A A C C C T A G C G C T C C G A G A T G C A T G T G 821

Mouse CD14 cDNA T G C T G C A - - - - G G C G C T C C G A G T T G T G A C T G 803

Majority G C C C A G T G C X C T A A A C T C X C T C A A T C T G T C G T T

830 840 850

Bovine CD14 cDNA G C C C A G T G C A C T A A G G T C T C T C A A T T T G T C G T T 848

Human CD14 cDNA G T C C A G C G C C T G A A C T C C C T C A A T C T G T C G T T 854

Mouse CD14 cDNA G C C C A G T C A G C T A A A C T C G C T C A A T C T G T C T T T 836

Majority C G C T G G G C T G G A G C A G G T G C C T A A A G G A C T G C C

860 870 880 890

Bovine CD14 cDNA C G C T G G G C T G G A G C A A G T G C C T A A G G G A C T G C C 881

Human CD14 cDNA C G C T G G G C T G G A A C A G G T G C C T A A A G G A C T G C C 887

Mouse CD14 cDNA C A C T G G G C T G A A G C A G G T A C C T A A A G G G C T G C C 869

Majority A G C C A A G C T C A G C G T G C T X G A T C T C A G C T G C A A

900 910 920

Bovine CD14 cDNA C C C T A A G C T C A G C G T G C T T G A T C T C A G C T G C A A 914

Human CD14 cDNA A G C C A A G C T C A G A G T G C T C G A T C T C A G C T G C A A 920

Mouse CD14 cDNA A G C C A A G C T C A G C G T G C T G G A T C T C A G T T A C A A 902

FIG. 6 D

Majority C A G G C T G A A C A G G G A G C C G C G G C C A G A C G A G C T

930 940 950

Bovine CD14 cDNA C A A G C T A A G C A G G G A G C C G C G G C C A G A C G A G C T 947

Human CD14 cDNA C A G A C T G A A C A G G G C G C C G C A G C C T G A C G A G C T 953

Mouse CD14 cDNA C A G G C T G G A T A G G A A C C C T A G C C C A G A T G A G C T 935

Majority G C C C G A G G T G G A T A A C C T G A C A C T G G A C G G A A A

960 970 980 990

Bovine CD14 cDNA G C C C G A G G T A A A T G A C C T G A C T C T G G A C G G A A A 980

Human CD14 cDNA G C C C G A G G T G G A T A A C C T G A C A C T G G A C G G G A A 986

Mouse CD14 cDNA G C C C C A A G T G G G G A A C C T G T C A C T T A A A G G A A A 968

Majority T C C C T T T C T G G A C C C T G G A X C X X T C C X X C X C C A

1000 1010 1020

Bovine CD14 cDNA T C C C T T T C T G G A C C C T G G A G C C C T C C A G C A C C A 1013

Human CD14 cDNA T C C C T T C C T G G T C C C T G G A A C T G C C C T C C C C C A 1019

Mouse CD14 cDNA T C C C T T T T G G A C T C T G A A - - - T C C C A C - T C G 996

Majority X A A X G G C T C A A T G A X C T C C G G C G T G G T C C C A G C

1030 1040 1050

Bovine CD14 cDNA A A A T G A C C C G A T G A T C T C C G G C G T G G T C C C A G C 1046

Human CD14 cDNA C G A G G G C T C A A T G A A C T C C G G C G T G G T C C C A G C 1052

Mouse CD14 cDNA G A G A A G T T T A A - - - C T C T G G C G T A G T C A C C G C 1025

Majority C T G T G C X C G T T C X X C C C T G X C X G T G G G G G T G T C

1060 1070 1080

Bovine CD14 cDNA C T G T G C G C G T T C T G C C C T T G A C C A T G G G G G T G T C 1079

Human CD14 cDNA C T G T G C A C G T T C G A C C C T G T C G G T G G G G G T G T C 1085

Mouse CD14 cDNA G G G A G C T C C A T C A T C C C A A G C A G T G G C C T T G T C 1058

Majority A G G A A C C C T G G C G C T G C T C C A A G G A G C C C G X G G

1090 1100 1110 1120

Bovine CD14 cDNA A G G A G C C C T G G C G C T G C T T C A A G G A G C C C G A G G 1112

Human CD14 cDNA G G G A A C C C T G G T G C T G C T C C A A G G G G C C C G G G G 1118

Mouse CD14 cDNA A G G A A C T C T G G C T T T G C T C C T A G G A G A T C G C C T 1091

Majority C T T T G C X T A A

1130

Bovine CD14 cDNA C T T C G C G T A A 1122

Human CD14 cDNA C T T T G C C T A A 1128

Mouse CD14 cDNA C T T T G T T A A 1101

FIG. 6 E

Majority M E R V X X L L L L L L P - L V H V S A X T P E P C E L D D E D F R C

10 20 30

Bovine CD14 M V C V P Y L L L L L L P S L L R V S A D T T E P C E L D D D F R C 35

Human CD14 M E R A S C L L L L L L P - L V H V S A T T P E P C E L D D E D F R C 34

Mouse CD14 M E R V L G L L L L L L - - - V H A S P A P P E P C E L D E E S - - C 30

Majority V C N F S D P K P D W S S A F Q C X X A V E V E I X A G G R S L E X F

40 50 60 70

Bovine CD14 V C N F T D P K P D W S S A V Q C M V A V E V E I S A G G R S L E Q F 70

Human CD14 V C N F S E P Q P D W S E A F Q C V S A V E V E I H A G G L N L E P F 70

Mouse CD14 S C N F S D P K P D W S S A F N C L G A A D V E L Y G G R S L E Y L 65

Majority L K R V D A D A D P X O Y A D T I K A L R V R R L T V G A A Q V P A Q

80 90 100

Bovine CD14 L K - - G A D T N P K Q Y A D T I K A L R V R R L K L G A A Q V P A Q 103

Human CD14 L K R V D A D A D P R Q Y A D T V K A L R V R R L T V G A A Q V P A Q 104

Mouse CD14 L K R V D T E A D L G O F T D I T K S L S L K R L T V R A A R I P S R 100

Majority L L V G A L R V L G Y S R L K E L T L E D L E V T G T X P P X P L E A

110 120 130 140

Bovine CD14 L L V A V L R A L G Y S R L K E L T L E D L E V T G T P P T P L E A 138

Human CD14 L L V G A L R V L A Y S R L K E L T L E D L K I T G T M P P L P L E A 139

Mouse CD14 I L F G A L R V L G T S G L Q E L T L E N L E V T G T A P P P L L E A 135

Majority T G P A L X X L X L R N V S W A T G X A W L A E L Q Q W L K P G L K V

150 160 170

Bovine CD14 A G P A L T T L S L R N V S W T T G G A W L G E L Q Q W L K P G L R V 173

Human CD14 T G L A L S S L R L R N V S W A T G R S W L A E L Q Q W L K P G L K V 174

Mouse CD14 T G P D I N I L N L R N V S W A T R D A W L A E L Q Q W L K P G L K V 170

Majority L S I A Q A H S L A F S C E Q V R X F P A L T T L D L S D N P X L G E

180 190 200 210

Bovine CD14 L N I A Q A H S L A F P C A G L S T F E A L T T L D L S D N P S L G D 208

Human CD14 L S I A Q A H S P A F S Y E Q V R A F P A L T S L D L S D N P G L G E 209

Mouse CD14 L S I A Q A H S L N F S C E Q V R V F P A L S T L D L S D N P E L G E 205

Majority R G L M A A L C P X K F P A L Q X L A L R N A G M E T P S G V C A A L

220 230 240

Bovine CD14 T G L M A A L C P N K F P A L Q Y L A L R N A G M E T P S G V C A A L 243

Human CD14 R G L M A A L C P H K F P A I Q N L A L R N T G M E T P T G V C A A L 244

Mouse CD14 R G L T S A L C P L K F P T L Q V L A L R N A G M E T P S G V C S A L 240

FIG. 7 A

Majority AAARVQPQSLDLSHNSLRXT-APGAPRCXWPSALN

 250 260 270 280

Bovine CD14 AAARVQPOS L D L S H N S L R V T - A P G A T R C V W P S A L R 277

Human CD14 AAAGVQPH S L D L S H N S L R A T V N P S A P R C M W S S A L N 279

Mouse CD14 AAARVQLQGL D L S H N S L R D A - A - G A P S C D W P S Q L N 273

Majority S L N L S F A G L E Q V P K G L P A K L S V L D L S C N R L X R X P X

 290 300 310

Bovine CD14 S L N L S F A G L E Q V P K G L P P K L S V L D L S C N K L S R E P R 312

Human CD14 S L N L S F A G L E Q V P K G L P A K L R V L D L S C N R L N R A P Q 314

Mouse CD14 S L N L S F T G L K Q V P K G L P A K L S V L D L S Y N R L D R N P S 308

Majority P D E L P E V X N L T L D G N P F L D P G X X X H X X X M N S G V V

 320 330 340 350

Bovine CD14 R D E L P E V N D L T L D G N P F L D P G A L Q H Q N D P M I S G V V 347

Human CD14 P D E L P E V D N L T L D G N P F L V P G T A L P H E G S M N S G V V 349

Mouse CD14 P D E L P Q V G N L S L K G N P F L D - - S E S H S E K F N S G V V 340

Majority P A C A R S X L X V G V S G T L A L L O G A R G F A

 360 370

Bovine CD14 P A C A R S A L T M G V S G A L A L L O G A R G F A 373

Human CD14 P A C A R S T L S V G V S G T L V L L O G A R G F A 375

Mouse CD14 T A G A P S S Q A V A L S G T L A L L G D R L E V 366

FIG. 7 B

A

Baculovirus expression system

Forward 5' - GCT AGC GCT AGC CAC CAT GGT GTG CGT GCC CTA CCT GCT - 3'

Reverse 5' - GCT AGC GCT AGC CGC GAA GCC TCG GGC TCC TTG AAG - 3'

B

Mammalian expression system

Forward 5' - CTC GAG CTC GAG GCT AGC CAC CAT GGT GTG CGT GCC - 3'

Reverse 5' - CTC GAGCTGAG GGA TCC CTA AGC GTA ATC TGG AAC - 3'

FIG. 8

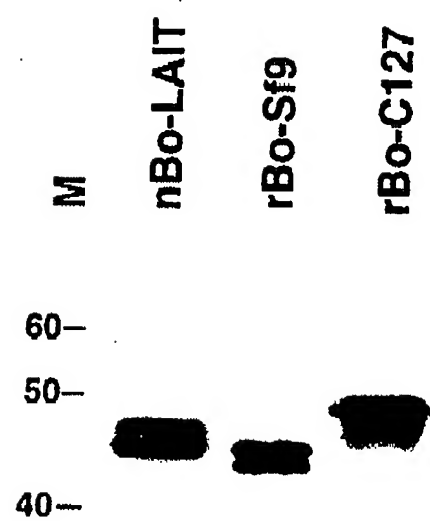


FIG. 9

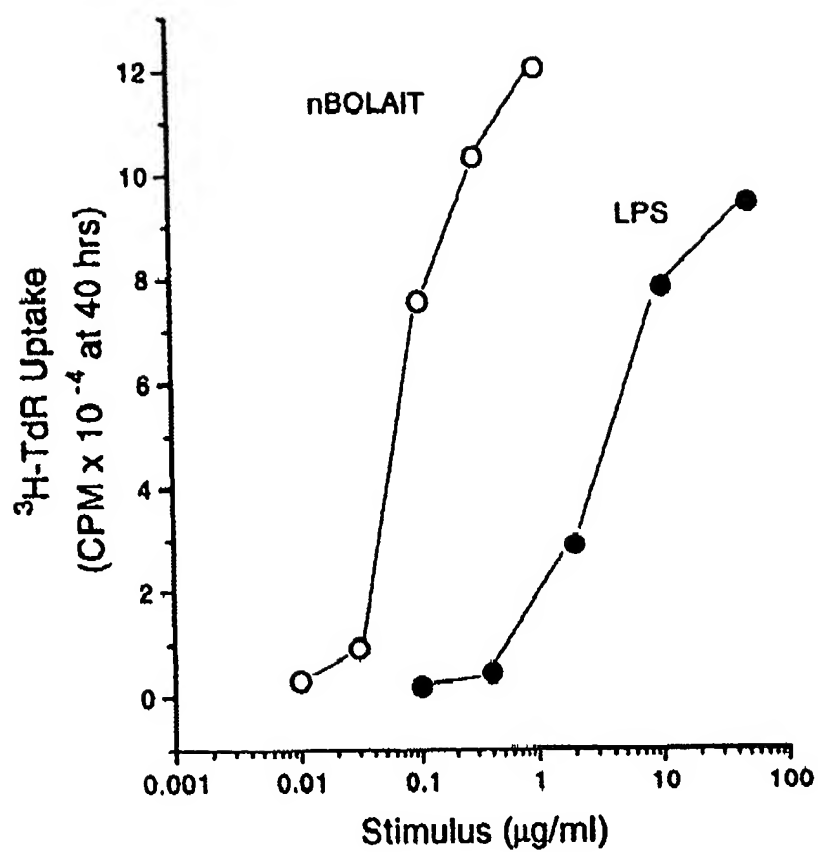


FIG. 10

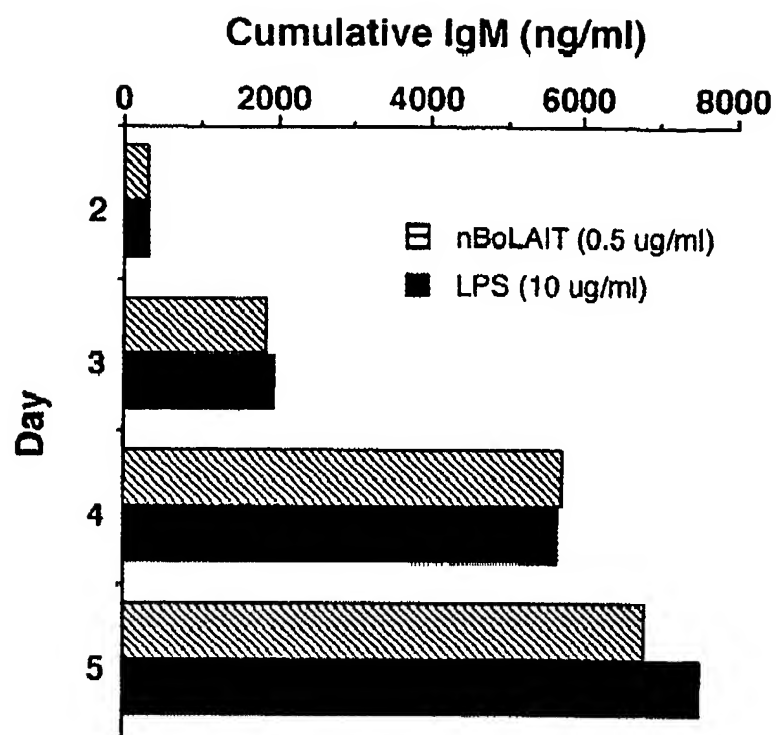


FIG. 11

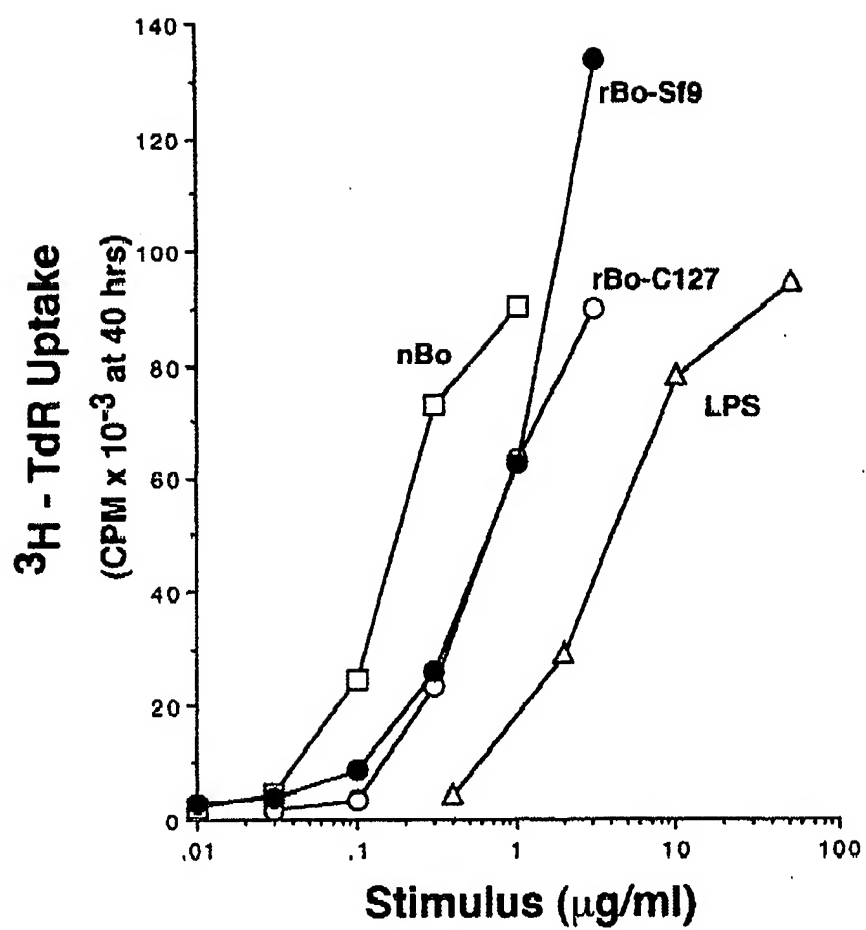


FIG. 12

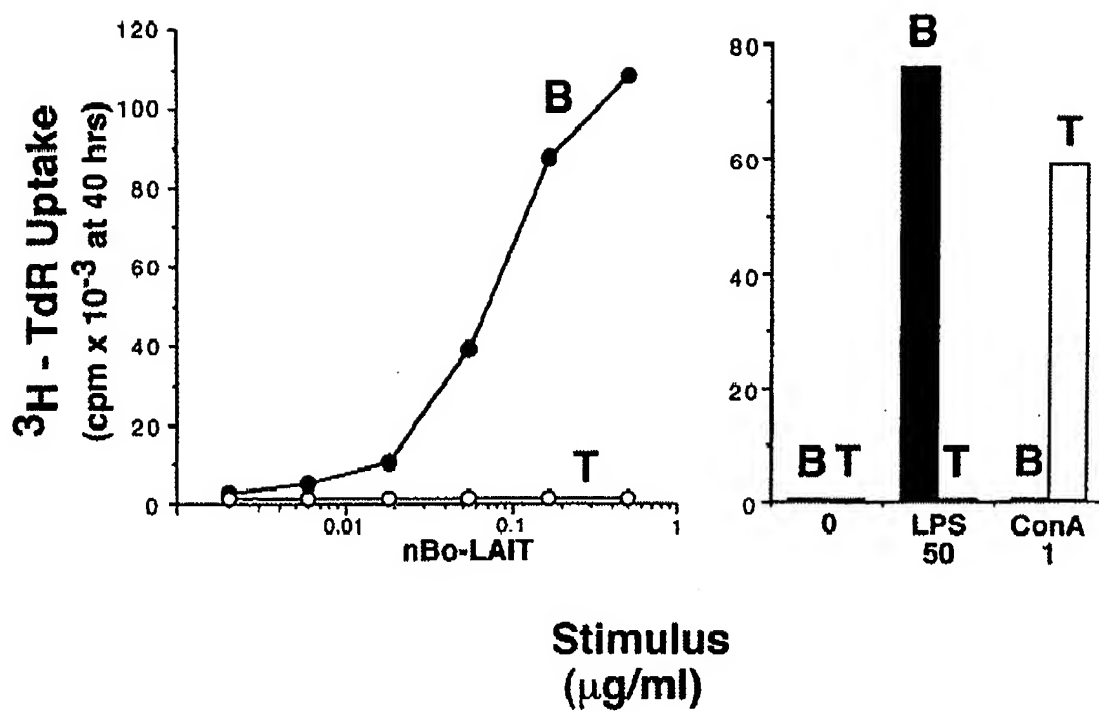


FIG. 13

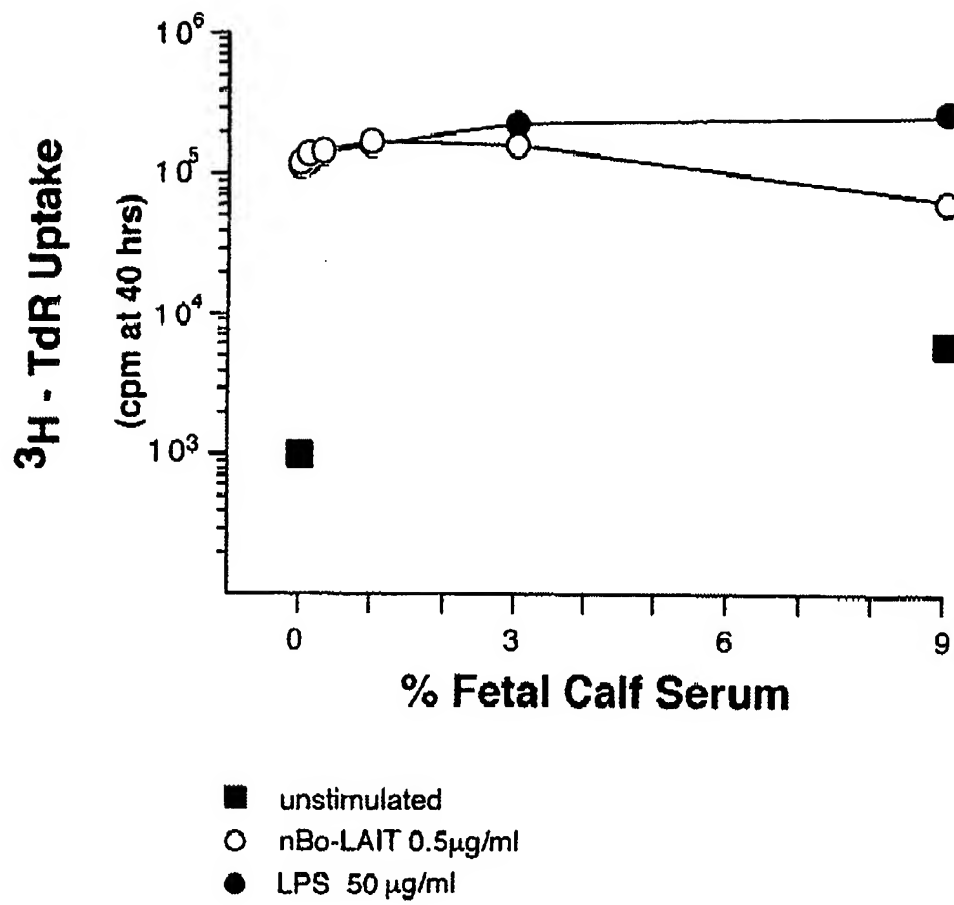
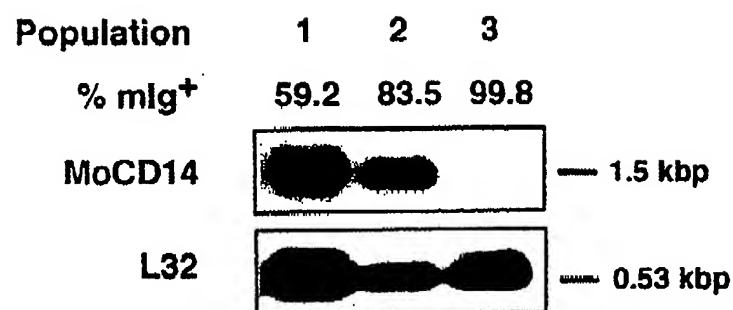
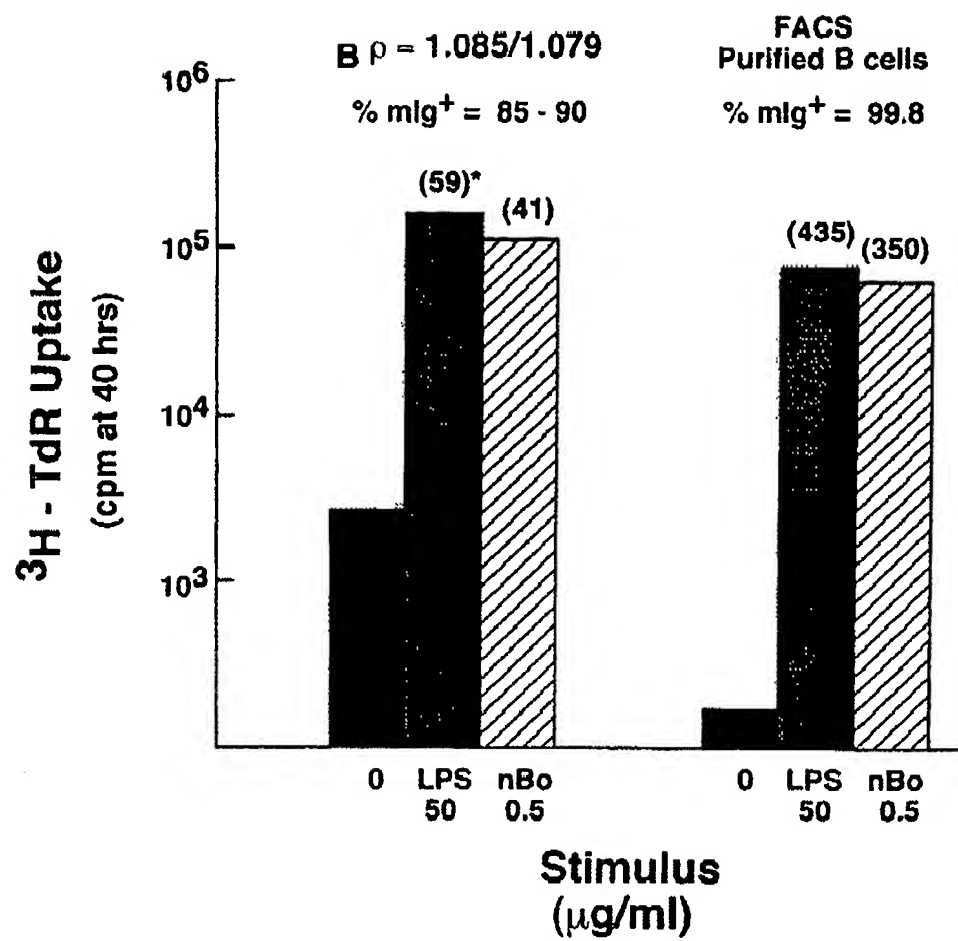


FIG. 14



Populations: 1 - unfractionated splenocytes
 2 - T-depleted, $\rho=1.085/1.079$ splenocytes
 3 - FACS purified mlg⁺ B cells from population 2

FIG. 15



* () = index of stimulation

FIG. 16

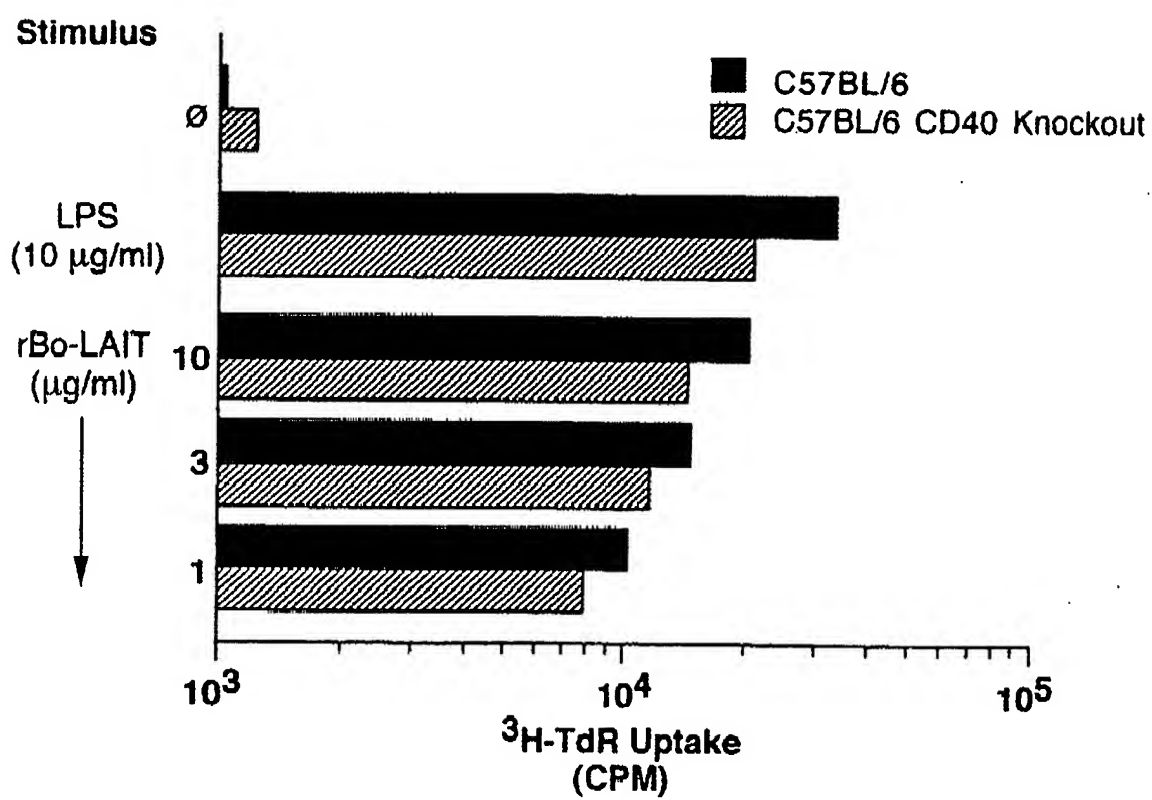
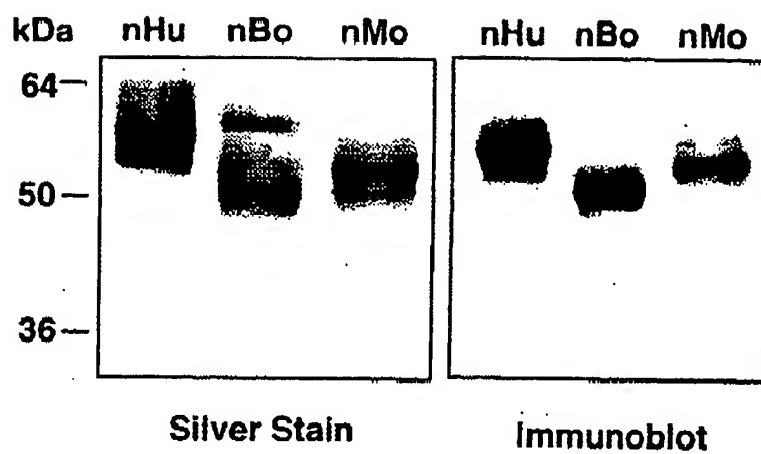


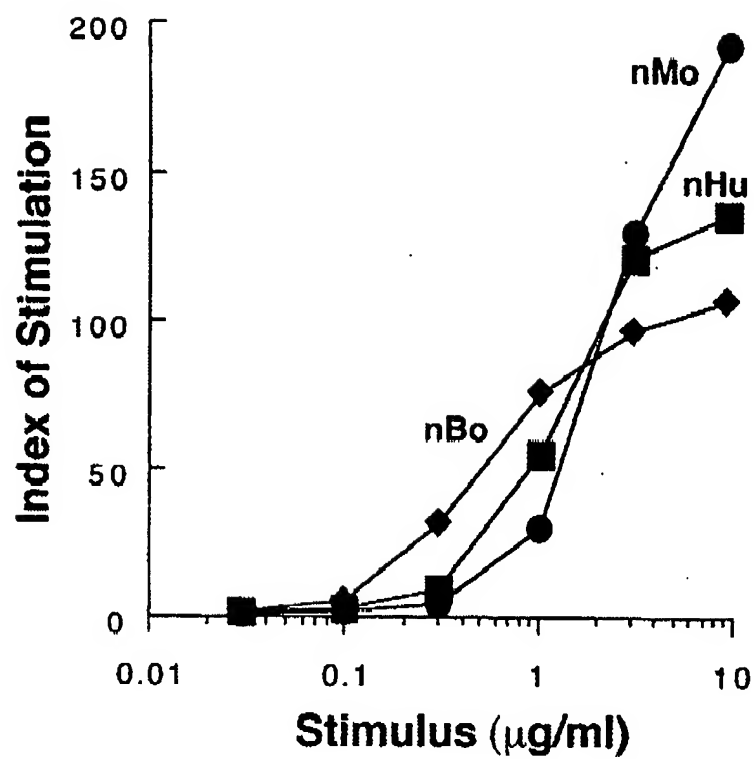
FIG. 17



Derivation

nHu - urine from nephrotic patient
nBo - colostrum
nMo - OKT3-hybridoma supernatant

FIG. 18



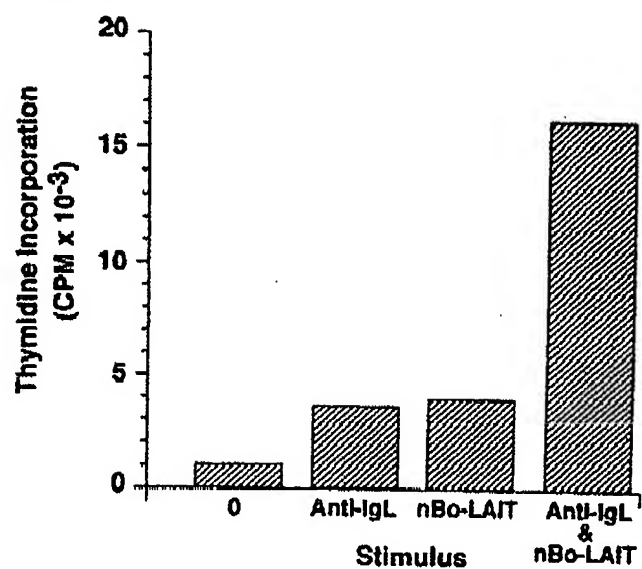
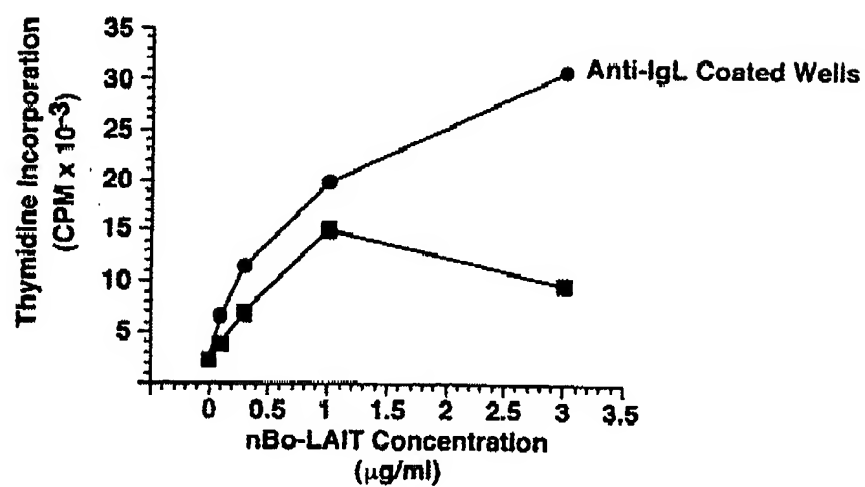
Derivation

nBo - colostrum

nHu - urine from nephrotic patients

nMo - OKT3-hybridoma supernatant

FIG. 19

A. Cord B Cells**B. Tonsil B Cells****FIG. 20**

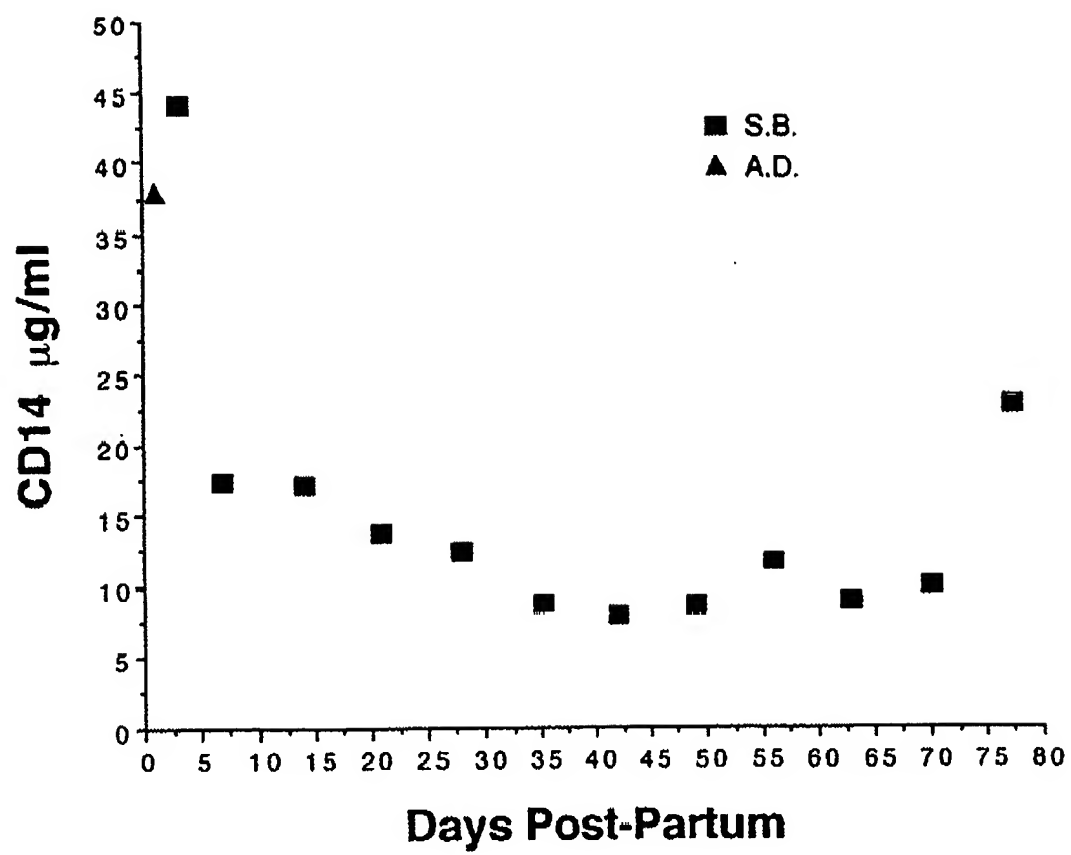


FIG. 21